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BIBLIOGRAPHY

1. STAN-CS-63-1 (AD462108), J. B. Rosen, *Primal Partition Programming for Block Diagonal Matrices*, 23 pages, November 1963. *
2. STAN-CS-63-2 (AD427753), J. M. Pavkovich, *The Solution of Large Systems of Algebraic Equations*, 46 pages, December 1963. *
3. STAN-CS-64-3 (AD430445), G. E. Forsythe (translated by), *The Theorems in a Paper by V. K. Saulev 'On an Estimate of the Error in Obtaining Characteristic Functions by the Method of Finite Differences'*, 6 pages, January 1964. *
4. STAN-CS-64-4 (AD434858), Stefan Bergman and J. G. Herriot, *Numerical Solution of Boundary Value Problems by the Method of Integral Operators*, 24 pages, February 1964. *
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11. STAN-CS-64-11 (PB176754), T. Nakamura and J. B. Rosen, *Elastic- Plastic Analysis of Trusses by the Gradient Projection Method*, 32 pages, July 1964. *
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37. STAN-CS-66-37 (PB176789), J. D. Reynolds, *Cogent 7.2 Operations Manual*, 33 pages, April 1966. \$2.70 H
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110. STAN-CS-68-110 (PB180920), H. Bauer, S. Becker, S. Graham and E. Satterthwaite, *ALGOL W (revised)*, 103 pages, October 1968. *
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115. STAN-CS-68-115 (AD692686), J. Friedman, T. Bredt, **R. Doran**, T. Martner and B. **Pollack**, *Programmer's Manual for a Computer System for Transformational Grammar*, 199 pages, August 1968. *
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